United States Steel Corporation
GARY WORKS
1 NORTH BROADWAY
GARY, INDIANA 46402

August 15, 1983

Earl A. Bohner, Director
Division of Water Pollution Control
Indiana State Board of Health
1330 West Michigan Street
P.O. Box 1964
Indianapolis, Indiana 46206

Dear Sir:

United States Steel Corporation
Gary Works - Fuel Oil Spill
of June 25, 1983

This is forwarding the information requested in your August 1, 1983 letter.

Following is a description of the containment and clean-up procedures used by Dombrowski and Holmes.

Initially, Dombrowski and Holmes (D & H) representatives were called to Gary Works at 12:00 p.m. (6/25) and arrived at 2:30 p.m. to tour the subject area. At this time, two separate oil slicks were observed floating offshore in the Gary Works slip and breakwater area. It was the opinion of D & H that the slicks could be contained with floating oil containment booms and skimmed off the surface of the lake with a super-sucker truck.

D & H equipment, which included a supersucker truck, vacuum truck, pipe truck, floating oil containment booms, floating oil absorbent booms, floating oil absorbent pillows, oil pom-poms, portable vacuum, portable generator and a boat began arriving on the scene at 4:30 p.m. to begin an around the clock emergency clean-up.

At this time, however, due to the water currents and persistent northeast wind, it was observed that the oil slick, which was originally located offshore in the breakwater area, had washed up into, and was beginning to wash through the rock breakwater. Therefore, in order to minimize the quantity of oil which could escape into open water, containment and absorbent booms were immediately deployed on the leeward side of the breakwater. The

oil slick in the slip area had been blown along the southwestern side of the slip and was in no danger of escaping into open water. As a result of the deployment of containment booms, favorable wind direction and facility configuration, the oil slicks in the breakwater and slip area were both contained and clean-up operations were initiated.

Oil in the rock breakwater was removed by a combination of various methods. Large globs, as well as pools of floating oil were removed by vacuuming the oil from the surface of the water with a portable vacuum. Due to the fact that the majority of this recovered oil was located approximately 1,000 feet out on the breakwater, the vacuumed oil had to be transported to shore manually, where it was transferred to the vacuum truck. In addition to vacuuming, oil absorbent pillows were generously scattered in the open spaces between the rocks to soak up oil which was found in concentrations too low to be effectively vacuumed. As the pillows became saturated with oil, they were replaced and transported to shore for disposal. Oil pom-poms were also used in an attempt to collect free floating oil. However, pom-poms are generally effective on floating oils of a relatively low viscosity. The oil involved in this spill was found to be too viscous and the pom-poms were found to be ineffective. Floating oil absorbent booms were eventually deployed around the entire rock area to collect any oil which was leaching from the rocks. These booms were left in place until they were no longer effective. All booms were removed by 6/30, when very little free floating oil was observed to be leaching from the rock breakwater. In addition to work being done on the breakwater itself, a 50' x 10' x 5" section of oil soaked gravel beach located in the immediate vicinity of the breakwater was also removed with the supersucker.

The oil slick located in the slip area was cleaned up with much less difficulty than the oil slick located in the rock breakwater. Since the wind was always from somewhat of an easterly direction, the oil stayed free-floating, but trapped along the west wall of the slip. The oil was collected by walking (with the aid of a boat) an oil containment boom up and down the west side of the slip to concentrate the numerous individual globs of oil. At the end of each pass, the oil which had been concentrated was sucked off of the surface of the water. In addition to floating oil, a large quantity of floating oil soaked debris was also removed from the slip area.

The clean-up of the oil spill at Gary Works was completed within five days with a total of over 600 manhours expended on the part of D & H and U. S. Steel.

Due to the northeast wind that was present at the time of the incident, very little oil was observed to escape the slip-breakwater area and continue out into the lake. Although the wind direction was observed to shift to the southeast during the day following the incident, the containment booms which were placed around the slicks were felt to minimize any appreciable leakage into the open waters of Lake Michigan. This was confirmed by periodic inspection and observation from a vantage point located 0.7 miles north of the subject outfall. This observation point was checked on a regular basis during the entire clean-up operation.

As required by the State and Federal regulations, USS personnel attempted to contact the required regulatory agencies at the time of the spill. While USS was successful in its attempts to contact the U. S. Coast Guard, we were unsuccessful in our attempts to contact the local representative of the Indiana State Board of Health. The local representative was finally reached June 27.

Due to the fact that a significant quantity of debris, as well as beach gravel, was collected and accumulated along with the recovered oil, the majority of this material resembled a thick sludge. This sludge was disposed of in an on-site landfill.

When USS personnel discovered the problem with the fuel oil injection system, the system was shut down until repairs were completed. As part of the clean-up action a temporary metal plate was placed over the subject sewer manhole and USS Engineering will investigate the fuel oil injection system in an effort to identify measures which will circumvent future problems. In addition to this investigation, fuel oil injection system personnel have increased the awareness of all injection personnel to prevent future problems.

In response to the subject oil spill, the Gary Works Spill Prevention Control and Countermeasure Plan was activated. However, due to the fact that not all problems involving this incident could be anticipated when the plan was written, some areas were found to be in need of revision. These areas were identified and the plan is currently being revised by USS Engineering personnel.

Please advise this office if additional information is required.

Very truly yours,

P K Morrison

P. K. Morrison
Chief Engineer

DPL/njj

Attachment